

REMARKSStatus of the Claims

Claims 9-16 have been cancelled herein, claims 1-8 having previously been cancelled.

New claims 17-25 have been added and are currently pending.

No new matter has been introduced.

Claim Objections — 37 CFR § 1.75(c)

Claims 14-16 have been objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim.

Applicant has cancelled claims 14-16 and has submitted new claims 17-25, which do not contain a multiple dependent claim that depends from another multiple dependent claim. The objection under 37 CFR 1.75(c), therefore, is moot.

Claim Rejections — 35 U.S.C. § 103

Claims 9-16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 406051679 to Aoki (hereinafter “Aoki”) in view of U.S. Patent No. 5,082,604 to Valyi (hereinafter “Valyi”). Reconsideration and withdrawal of the rejections are respectfully requested insofar as it might be asserted against new claims 17-25.

As defined in independent claims 17, 19, and 22, the claimed invention pertains to a method for producing a magnet roller by injecting a resin-bonded magnet material into a product cavity formed by a fixed metal mold and a moveable metal mold that comprises an end of the product cavity. In accordance with the invention, the movable metal mold is moved by the force of the injected material such that the volume of the product cavity is increased in

accordance with the amount of the magnet material injected into the cavity. Concurrently with the injection of the magnet material, a magnetic field is applied to the product cavity.

In particular, claims 17, 19, and 22 each recite a structure of the moveable metal mold comprising a “cylindrical concave portion in order to form a shaft portion of the magnet roller on an end of the magnet roller body integrally and in a protruding fashion.” When the resin is first injected into the mold, the “cylindrical concave portion” (formed by cavity wall segments 4C and 4D shown in FIG. 1 and described at lines 1-2 of page 21 of the specification) of the mold contains the resin and prevents it from splattering or jetting against the wall of the mold cavity. In contrast to the concave portion, a flat surface will not contain the resin being injected and thus resin will splatter and jet onto the periphery of the wall surface portion of the mold cavity. The resin will adhere to the periphery of the wall surface causing the magnetic roller to have defects, such as flow marks, internal bubbles, and warping, which occur in the prior art. By containing the initially injected resin in the cylindrical concave portion of the mold, the invention prevents the resin from splattering and subsequently adhering to the wall, thus avoiding the aforementioned problems of the prior art.

The combination of Aoki and Valyi fails to render independent claims 17, 19, and 22 obvious under 35 U.S.C. § 103. To establish the *prima facie* case of obviousness of a claimed invention under 35 U.S.C. § 103, all the claim limitations must be taught or suggested by the prior art. *See* MPEP § 2143.03. Neither Aoki nor Valyi discloses or suggests the limitation of a moveable metal mold with a “cylindrical concave portion,” or alternatively, any structural equivalent to contain the resin or to prevent splattering or jetting of the resin. Further, because the “cylindrical concave portion” prevents the magnetic roller from having defects, such as flow marks, internal bubbles, and warping, had such a structure been obvious, one of ordinary skill in

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the art of manufacturing magnetic rollers at the time of the invention would have been motivated to incorporate this feature into a moveable mold. Yet, as mentioned above, both Aoki and Valyi failed to disclose or suggest such a “cylindrical concave portion,” which buttresses the argument that the “cylindrical concave portion” was not obvious to one of ordinary skill in the art of manufacturing magnetic rollers at the time of the claimed invention. Thus, for at least this reason, applicant respectfully asserts that the combination of Aoki and Valyi fails to make obvious any of the aforementioned new independent claims.

Because independent claims 17, 19, and 22 are non-obvious under 35 U.S.C. § 103, claims 18, 20, 21, and 23-25 depending therefrom are rendered non-obvious. *See id.*

Conclusions

In view of the foregoing, we respectfully submit that the application is in condition for allowance in all respects. Issuance of the application to patent is respectfully requested.

Respectfully submitted,



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